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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/625,792 | 07/26/2000 | Hartmut Boche | 02581-P0316A | 8313 |

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EXAMINER

MATHEW, FENN C

ART UNIT PAPER NUMBER

3764

DATE MAILED: 08/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 09/625,792 | Applicant(s) BOCHE, HARTMUT | |
| | Examiner Fenn C. Mathew | Art Unit 3764 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 June 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4,5,7-13,15,17,18,20 and 21 is/are pending in the application.
- 4a) Of the above claim(s) 7,10 and 15 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,5,8,9,11-13,17,18,20 and 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 July 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 06/12/2006 has been entered.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1, 5, 8-9, 11-12, 17-18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuno et al. (4,274,423) in view of Corl et al. (5,715,827) and Van Bockel (6,159,156). Referring to claim 1, Mizuno discloses a medical instrument having an instrument body (10, 11), a recess in the instrument body (see notch in fig. 3) which comprises a collar forming an undercut (angled walls), the collar having an inside diameter (inherently), an embedding medium (see 21, 22 in fig. 3 and col. 5, lines 52-col. 6, line 4), a readable data carrier (14) embedded in the recess (see fig. 3), the data carrier being non-removably held in the undercut. Mizuno does not disclose the data carrier having outer dimensions smaller than the inside diameter. Corl et al. teaches an

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analogous device including a recess wherein a data carrier is placed. Corl teaches the recess having a larger diameter than the outer dimensions of the data carrier for easier placement into the instrument body. Note that Corl also teaches in figures 7-8 that the collar has an inside diameter that is smaller than a length and width of the recess based on the sloping nature of the walls forming the recess. It would have been obvious to one of ordinary skill in the art at the time of invention to provide Mizuno with a data carrier with outer dimension smaller than the opening of the recess in an instrument body as taught by Corl for easier placement in the instrument body. Furthermore, Mizuno does not teach the data carrier is a wireless data carrier, however, Van Bockel teaches in col. , lines 44-60 that it is known in the medical instrument art that measures physiological characteristics, to make the device with a wireless data carrier in order to reduce costs and technical difficulties (size, structural integrity, sensor performance) that result from guide wires connected to sensors and small probes. Thus one having ordinary skill in the art would have known to make the data carrier of Mizuno a wireless data carrier in order to reduce the costs of the instrument and to overcome technical limitations of the wired data carrier. In addition Van Bockel teaches in the above cited portions that the data carrier includes a transmitter and receiver sending out signals in an electromagnetic field. Thus for reasons states above one having ordinary skill in the art would have known to include a transponder with an antenna as substantially disclosed.

4. Referring to claim 5, Mizuno discloses the instrument is made from stainless steel (col. 7, lines 1-2) and that the medium is made from silicone rubber (col. 6, lines 1-

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4). Mark's Standard Handbook for Mechanical Engineers states that the elasticity modulus of stainless steel is 27.6 msi (Table 5.1.3) and Mechanics of Materials states the elasticity modulus of stainless steel is 28-30 msi and for rubber is between 0.1 and 0.6 msi (Table H-2). As such Mizuno inherently discloses the embedded medium having an elasticity modulus smaller than the elasticity modulus of the instrument body. Referring to claim 8, Mark's Standard Handbook for Mechanical Engineers states that the heat conductivity for steel is 26.2 and for soft rubber is 0.08. thus Mizuno inherently teaches the heat conductivity of the embedded medium is smaller than that of the instrument. Referring to claim 9 Mizuno shows a spacer (13) arranged between the data carrier and the recess. Referring to claim 11, figure 3 of Mizuno shows a recess that comprises an opening (around 12) which forms a window on the outer surface of the body. Referring to claim 12, since the material around the recess is different from the outer surface of the instrument as shown in figure 3 of Mizuno, the recess is visually recognizable in the region of the outer surface. Referring to claims 17-18, and 20, the limitations are substantially similar in scope to the above claims. Note that the angled walls of the recess cause differing lengths and widths at different points of the recess, and that the data carrier is smaller than the recess, and further that the top of the recess is larger than the length L_K as seen in the figures. Referring to claim 20, note that encapsulation is taught which inherently results in a degree of shielding from mechanical or thermal load.

5. Claim 4 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuno in view of Corl and Van Bockel as applied to claim 1 and 20 above, and further

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in view of Edwards (U.S. 5,456,682). Mizuno also teaches in col. 6, line 51 that the instrument is also made from a woven Dacron. Dacron is made from a polyethylene material. Mizuno also discloses the embedded medium is used to electrically isolate and to provide safety to the data carrier. However, Mizuno does not disclose an embedded medium other than silicone rubber. Edwards teaches in col. 7 lines 43-51 a potting compound to encapsulate and insulate a sensor of medical probe that includes loctite material. Loctite is a ceramic material with has a higher elasticity modulus than engineering polymers. Thus one having ordinary skill in the art would have known to substitute the silicone rubber encapsulated material for loctite-potting compound in order to isolate the data carrier of Mizuno. Therefore, the embedded medium would have a larger elasticity modulus than the instrument body in order to properly isolate the sensor electrically.

6. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mizuno in view of Corl and Van Bockel, as applied to claim 1 above, and further in view of Yunoki (4,686,964). Mizuno, as modified above discloses a wireless data carrier, however there is no discussion to surround the data carrier by a glass casing. Yunoki teaches in the abstract to surround sensors of a medical device with a casing in order to shield the sensor from external electromagnetic effects. Thus one having ordinary skill in the art would have known to surround a sensor with casing in order to shield the sensor from external magnetic effects. Additionally, it would have been obvious to one having ordinary skill in the art at the time of invention was made to select glass casing, since it has been held to be within the general skill of a worker in the art to select a

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known material on the basis of its suitability for the intended use, and glass is a material used to shield against extraneous electromagnetic effects, and is suitable for the purpose as taught by Yunoki.

Response to Arguments

7. Applicant's arguments with respect to claims 1, 4-5, 8-9, 11-14, 17-18, and 20-21 have been considered but are moot in view of the new ground(s) of rejection. Please note rejections above based on the newly cited Van Bockel reference.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fenn C. Mathew whose telephone number is (571) 272-4978. The examiner can normally be reached on Monday - Friday 9:00am - 5:30pm.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Fenn C. Mathew
August 17, 2006